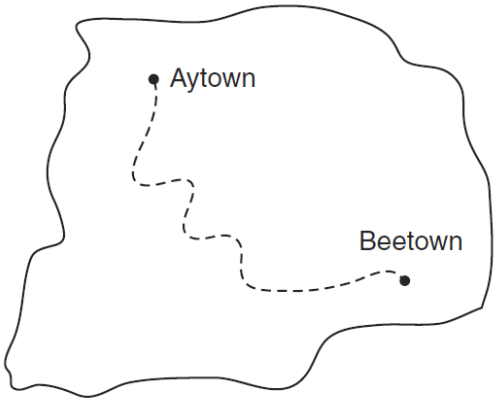
AVERAGE SPEED-SET-2-QP

1

A train travels along a track from Aytown to Beetown. The map shows the route.



The distance travelled by the train between the towns is 210 km. It moves at an average speed of 70 km / h.

How long does the journey take?

A less than $\frac{70}{210}$ hours, because the journey is not in a straight line

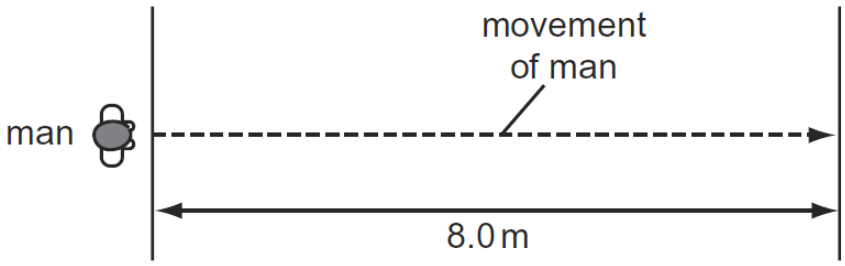
B exactly $\frac{70}{210}$ hours

C exactly $\frac{210}{70}$ hours

D more than $\frac{210}{70}$ hours, because the journey is not in a straight line

2

A man crosses a road 8.0 m wide at a speed of 2.0 m / s.

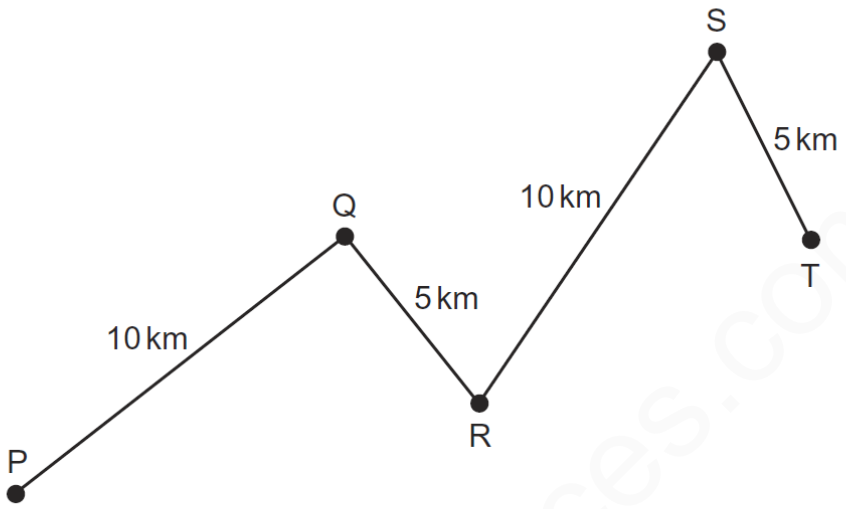


How long does the man take to cross the road?

A 4.0 s **B** 6.0 s **C** 10 s **D** 16 s

3

A car travels along the route PQRST in 30 minutes.



What is the average speed of the car?

A 10 km / hour

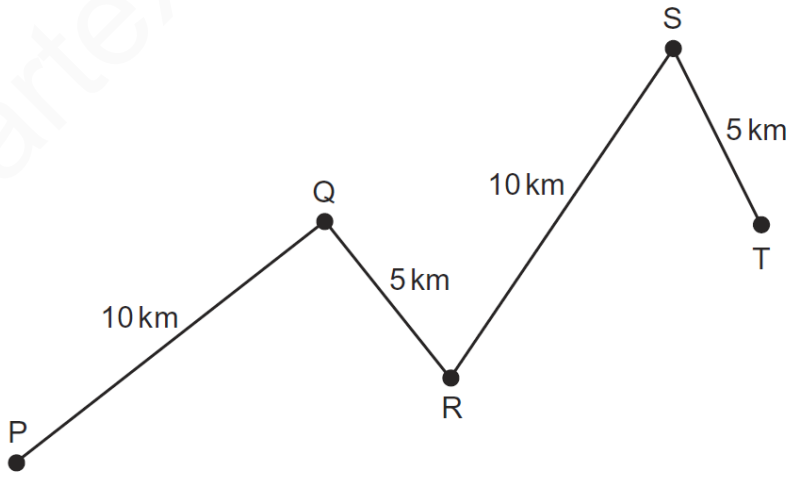
B 20 km / hour

C 30 km / hour

D 60 km / hour

4

A car travels along the route PQRST in 30 minutes.

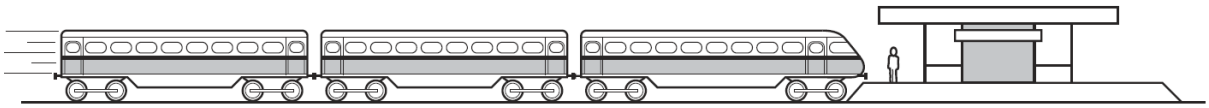


What is the average speed of the car?

A 10 km / hour **B** 20 km / hour **C** 30 km / hour **D** 60 km / hour

5

A child is standing on the platform of a station.



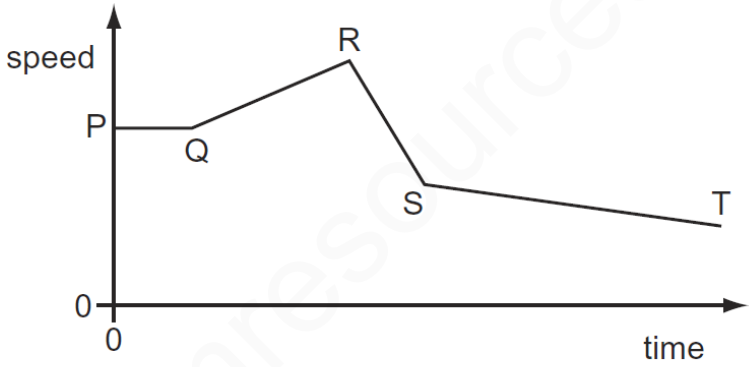
A train travelling at 30 m / s takes 3.0 s to pass the child.

What is the length of the train?

A 10 m **B** 27 m **C** 30 m **D** 90 m

6

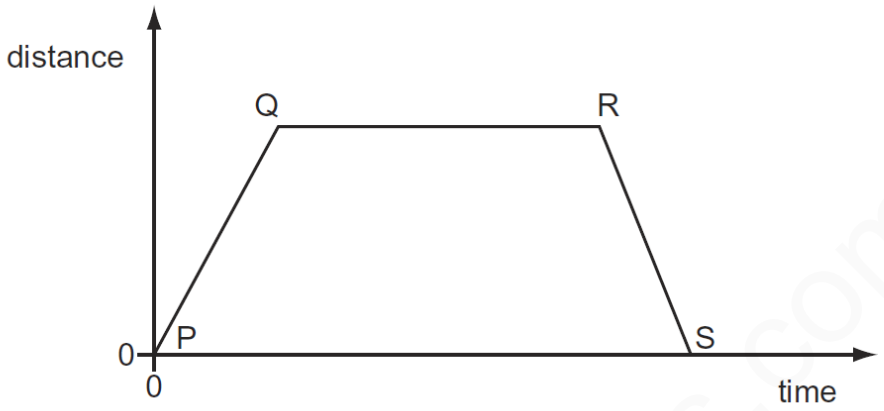
The diagram shows the speed / time graph for a train as it travels along a track.



For which part of the graph is the train's speed changing at the greatest rate?

A PQ **B** QR **C** RS **D** ST

7 The graph shows how the distance travelled by a vehicle changes with time.



Which row describes the speed of the vehicle in each section of the graph?

	P to Q	Q to R	R to S
A	constant	zero	constant
B	constant	zero	decreasing
C	increasing	constant	decreasing
D	increasing	zero	decreasing

8 A runner runs 300 m at an average speed of 3.0 m/s. She then runs another 300 m at an average speed of 6.0 m/s.

What is her average speed for the total distance of 600 m?

A 2.0 m/s **B** 4.0 m/s **C** 4.5 m/s **D** 8.0 m/s

9 An athlete runs at a speed of 8 m/s for 10 s, and then at a speed of 6 m/s for 12 s.

Which calculation gives the average speed of the athlete in m/s?

A $\frac{8+6}{2}$

B $\frac{(8\times10)+(6\times12)}{22}$

C $\frac{(8\div10)+(6\div12)}{22}$

D $\frac{(10\div8)+(12\div6)}{22}$

10	A boy runs 400 m at an average speed of 4.0 m / s. He runs the first 200 m in 40 s. How long does he take to run the second 200 m? **A** 60 s **B** 66.7 s **C** 80 s **D** 140 s
11	A car travels at an average speed of 60 km / h for 15 minutes. How far does the car travel in 15 minutes? **A** 4.0 km **B** 15 km **C** 240 km **D** 900 km